REMARKS

The specification has been amended in order to correct grammatical and idiomatic errors contained therein. The claims have been amended in order to more particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically speaking, the subject matter of Claim 14 has been incorporated into Claim 12 and the surface treatment chemicals defined as comprising a reaction product of the reactive modifier with the water-soluble organic substance. No new matter has been added.

As discussed above, in order to respond to the Examiner's rejection under 35 USC 112, the subject matter of Claim 14 has been incorporated into Claim 12. Additionally, the reactive modifier has been defined as being reactive with the water-soluble organic substance to form a reaction product. Numerous examples of the reactive modifier of the present invention are given on page 7 of the present specification. As the Examiner is well aware, the claims are to be interpreted in light of the specification. Given the specific descriptions of what constitutes a "reactive modifier" according to the present invention, the Applicant clearly has met the requirements of 35 USC 112. Favorable consideration is respectfully solicited.

Claim 12 has been rejected under 35 USC 102(b) as being anticipated by Harper, Jr. Claims 12-15 have been rejected under 35 USC 102(b) and (e) as being anticipated by Yamada et al. Claims 12-15 have been rejected under 35 USC 102(b) as being anticipated by Kimura et al. Applicants respectfully traverse these grounds of rejection and urge reconsideration in light of the following comments.

The presently claimed invention is directed to surface treatment chemicals which comprise a water-soluble organic substance selected from the group consisting of at least one of protein, protein derivatives and polysaccharides, having an average molecular weight of from 100-20,000, and a reactive

modifier reactive with the water-soluble organic substance to form a reaction product. As discussed in the present specification, the instant invention imparts a superior moisture absorbency to a synthetic fiber, is very durable and yet has a soft feel on the fiber. The reactive modifier reacts with the water-soluble organic substance to form a durable hydrophilic layer on the surface of the fiber. It is respectfully submitted that the prior art cited by the Examiner does not disclose the presently claimed invention.

The Harper, Jr. reference discloses a process for producing smooth dry cellulose-containing fabrics which comprises the treatment of the fabric with a solution of a cross linking agent, acid catalyst and a long chain alkyl bishydroxyethyl quaternary amine salt additive. However, this reference does not disclose a water-soluble organic substance selected from the group consisting of a protein, protein derivatives or polysaccharides and a reactive modifier for reacting with the water-soluble organic substance. Therefore, the presently claimed invention clearly is patentably distinguishable over this reference.

The Yamada et al reference discloses a polyurethane fiber-containing textile products having improved sweat absorption/exhalation properties which is produced by dipping polyurethane fibers in a water-soluble wool protein solution to selectively absorb the wool protein on the polyurethane fibers. The wool protein of Yamada et al has a molecular weight of from several thousands to several hundred thousands (Column 7, lines 2-10) and would have a harsh "feel" when used in the present invention. In contrast to the Yamada et al reference, the present invention reacts a water-soluble organic substance having a molecular weight of from 100 to 20,000 with the reactive modifier to form a durable hydrophilic layer on the surface of the fibers which has a good "feel". Yamada requires that the water-soluble wool

protein be selectively absorbed by the polyurethane fiber. As such, the presently claimed invention clearly is patentably distinguishable over this reference.

The Kimura et al reference discloses a non-woven fabric coated with a mixture of silk fibroin, gelatin and a solublized chitosan which is used as a carrier for adhering animal cells during culturing or for immobilization of animal cells. In this reference, a binder agent such as a polyurethane emulsion and epoxy cross-linking agent is coated on the non-woven fabric and is dried and then a protein solution is impregnated therein. There is no disclosure in this reference of forming a reaction product of a water-soluble organic substance in a reactive modifier and then coating this reaction product on the fibers. As such, the presently claimed invention clearly is patentably distinguishable thereover.

In the present specification, there are numerous Examples and Comparative Examples which illustrate the properties associated with the presently claimed invention. Even though the Examiner has not made a showing of prima facie obviousness under 35 USC 103, it is respectfully submitted that the Examples and Comparative Examples contained in the present specification more than establish the unobviousness of the presently claimed invention.

The Examiner is respectfully requested to reconsider the present application and to pass it to issue.

Respectfully submitted,

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